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A NEW SPECIES OF THE GENUS *BLAISEUS* FLEUTIAUX (COLEOPTERA: ELATERIDAE, CARDIOPHORINAE) FROM HAINAN, CHINA

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Summary. *Blaiseus hainanensis* Qiu et Douglas, sp. n. (Coleoptera: Elateridae) is described and illustrated based on two male specimens from Hainan Island, China. This is the second species of the genus *Blaiseus* Fleutiaux, 1931 known from China, and the 11th world species. The type specimens were all collected by night searching in montane forest and kept in the Institute of Entomology, Southwest University, Chongqing, China.

Key words: Coleoptera, Elateridae, Cardiophorinae, *Blaiseus*, taxonomy, new species, China.

Л. Цю, Х. Дуглас. Новый вид рода *Blaiseus* Fleutiaux (Coleoptera: Elateridae, Cardiophorinae) с острова Хайнань, Китай // Дальневосточный энтомолог. 2017. N 343. С. 1-8.

Резюме. С острова Хайнань (Китай) описан новый вид *Blaiseus hainanensis* Qiu et Douglas, sp. n. (Coleoptera: Elateridae). Это второй китайский вид рода *Blaiseus* Fleutiaux, 1931, который в мировой фауне насчитывает 11 видов. Типовые экземпляры нового вида собраны ночью в горном лесу и хранятся в Институте энтомологии, Юго-Восточного университета, г. Чунцин, Китай.

INTRODUCTION

The little known click beetle genus *Blaiseus* Fleutiaux contained ten species from East and Southeast Asia, South Africa and North and Central America (Douglas, 2009), and was originally established for the single species *B. bedeli* (Fleutiaux, 1931). Douglas (2009) revised this genus and added nine species, since then, no more species were reported. This genus is characterized by simple mandibles, by aedeagus with split parameres, by tergite IX and sternite IX articulated at their posterior ends, and by fossorial legs (in most species) (Douglas, 2009, 2017). The wide distribution of this genus with large apparent distributional gaps suggests that this is a long-separated lineage with a possibly relictual distribution (Douglas, 2017).

In this paper, we describe a new species from Mt. Jianfengling, Hainan, China. Habitus, detailed characters and habitat of the species are illustrated. Both types were collected by forest night searching.

MATERIAL AND METHODS

Morphological terminology used in this paper mainly follows Douglas (2009). Arrows in the figures indicate notable characters. The genital segments of the examined specimens were macerated in 10% NaOH and observed in glycerin jelly using a Motic® K400 stereomicroscope and a Leica® M205A stereomicroscope. Photographs of the specimen and characters were taken using a Leica® M205A stereomicroscope plus Leica® DFC 550. All photographs were modified in Adobe Photoshop® CS6.

The type specimens of the new species are deposited in the Institute of Entomology, Southwest University, Chongqing, China.

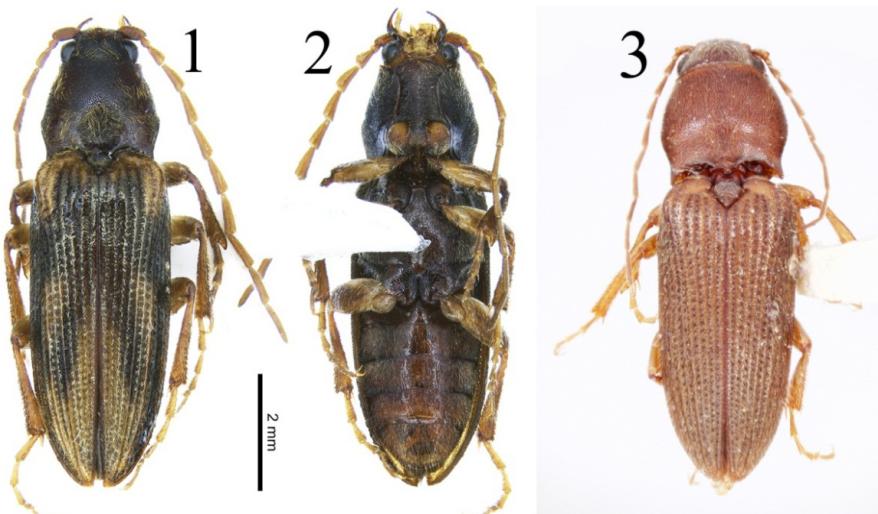
TAXONOMY

Genus *Blaiseus* Fleutiaux 1931

***Blaiseus hainanensis* Qiu et Douglas, sp. n.**
Figs. 1, 2, 4–27

MATERIAL EXAMINED. Holotype – male, **China**: Hainan: Mingfenggu, Mt. Jianfengling, Ledong County, 990–1000m, 24.IV 2015, leg. Lu Qiu. Paratype: 1 male, same data as the holotype.

DIAGNOSIS. This species has similar male genitalia to *Blaiseus daklakensis* Douglas but can be easily distinguished by the following characteristics: 1) body dark brown, with yellow-brown antennae and legs, elytra with elongate yellow-brown patches (Figs 1, 2), while *B. daklakensis* has body pale red-brown, with pale legs and abdomen, elytral colour uniform (Fig. 3); 2) punctures on pronotal disk separated by less than their diameter (Fig. 12); separated by more than their diameter in *B. daklakensis*; 3) antennae reaching beyond metacoxae, while antennae only reaching metacoxae in *B. daklakensis*; 4) dorsal apex of parameres with shallow pits (Fig. 27, arrows), while dorsal apex protruded in *H. daklakensis* (Figs 28, 29, arrow).



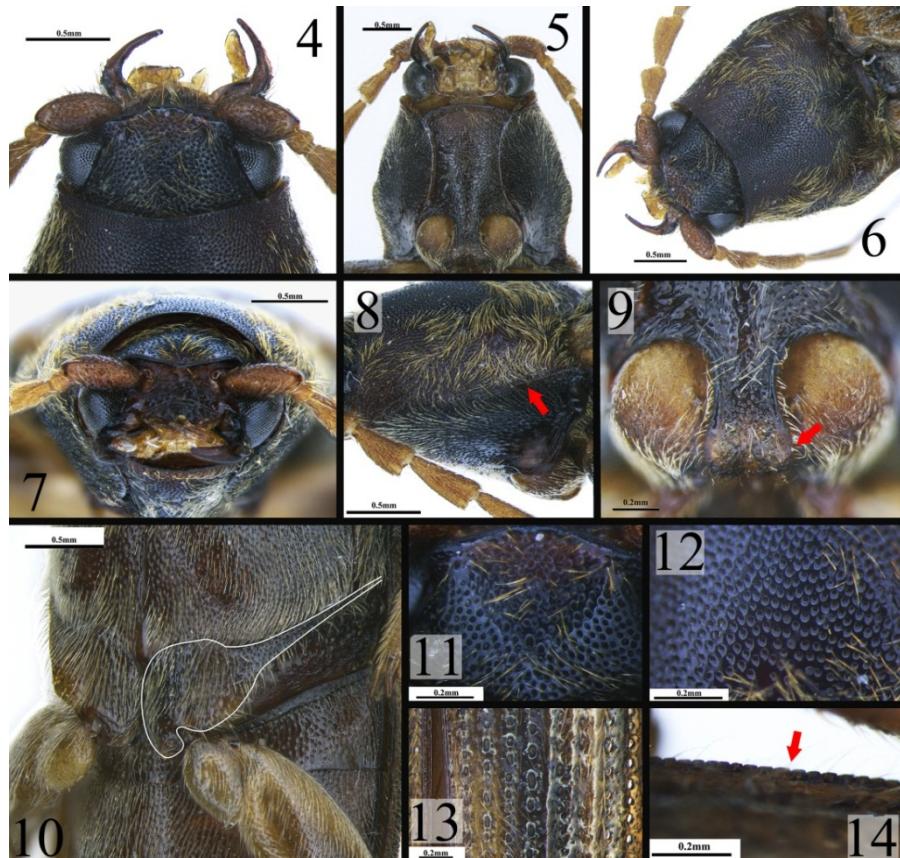
Figs 1–3. Habitus of *Blaiseus* spp. 1, 2 – *B. hainanensis* sp. n., male holotype: 1 – dorsal view; 2 – ventral view; 3 – *B. daklakensis*, male holotype, dorsal view (kept in Bernice P. Bishop Museum, Honolulu, Hawaii, U.S.A.).

DESCRIPTION. Male. Body length 7.8–8.1 mm, elytra length 5.7–5.8 mm, pronotum length 1.7–1.8 mm, pronotum width 2.0–2.2 mm, antenna length 6.0–6.1 mm.

Body with yellow-brown pubescence, elytra with weak metallic reflection, dark brown with elongate yellow stripes at humeri, along suture and the 6th interval on apical half; head, thorax and abdomen dark brown, antennae and legs yellow-brown (Figs 1, 2).

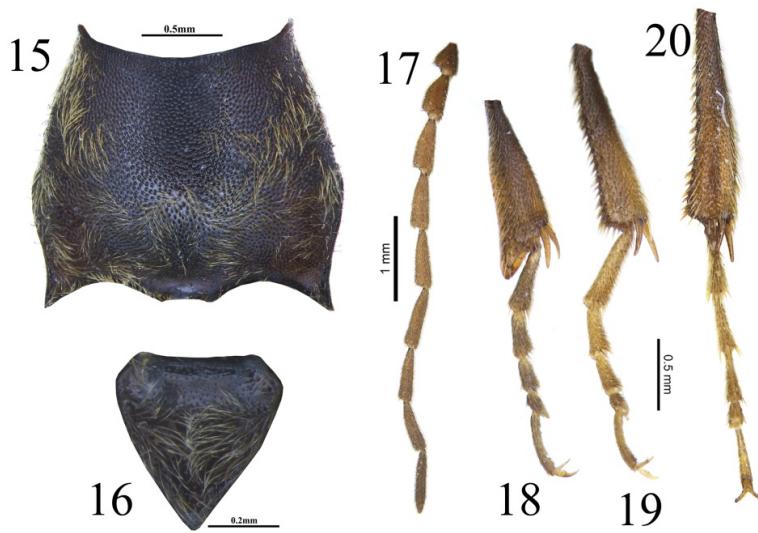
Head sparsely pubescent (Figs 4, 6), densely covered with large punctures, mid-anterior surface slightly depressed (Fig. 11). Antennae (Fig. 17) exceeding metacoxae by length of antennomere 11 (Figs 1, 2); labrum small (Fig. 7), flat in lateral profile, nasale with round pits antero-mesad of antennal fossae.

Prothorax: pronotum sparsely with pubescence except mid-anterior area (Figs 6, 15), punctures on pronotal disk separated by less than their diameter (Fig. 12). Posterior edge of pronotum with 2 apices mesally; hypomeron with hind edge sinuate immediately meso-ventrad of hind angles (Figs 5, 8). Prosternum with ventral surface of prosternal process surface not carinate laterally (Fig. 9, arrow).



Figs 4–14. Male *Blaiseus hainanensis* sp. n. 4 – head, dorsal view; 5 – head and prothorax, ventral view; 6 – head and pronotum, anterolateral view; 7 – head, anterior view; 8 – prothorax, lateral view; 9 – prosternal process (arrow), ventral view; 10 – metacoxal plate (outlined); 11 – punctures of frons; 12 – punctures on pronotal disc; 13 – punctures of elytral disk; 14 – side of elytron.

Pterothorax: scutellar shield with posterior apex pointed (Fig. 16). Elytra not upturned at apex; punctures unequal-sized, round or elongate (Fig. 13); interval 5 costate on apical third; epipleurae irregularly serrate (Fig. 14). Hind wings with CuA1 not forked at junction with MP3+4.

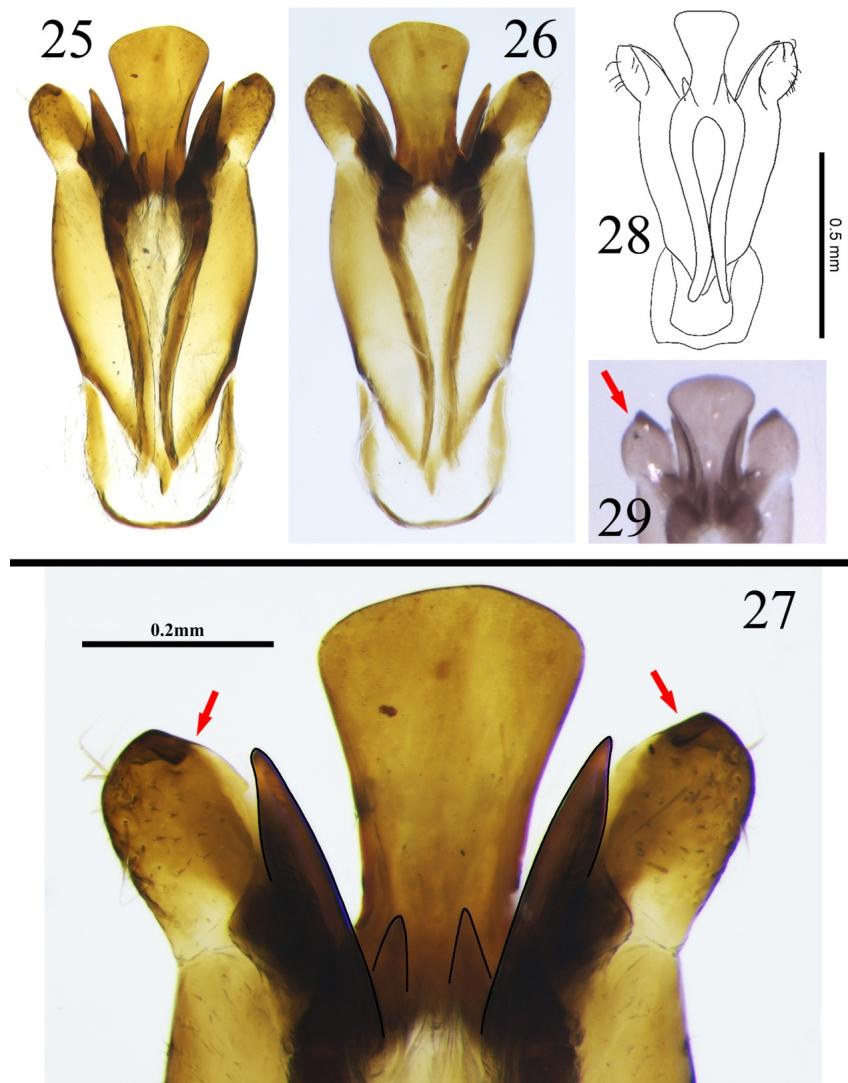


Figs 15–20. Male *Blaiseus hainanensis* sp. n. 15 – pronotum; 16 – scutellar shield; 17 – antennomeres 3 to 11; 18 – protibia and tarsus; 19 – mesotibia and tarsus; 20 – metatibia and tarsus. (Figs 18, 19, 20 under the same scale).



Figs 21–24. Male *Blaiseus hainanensis* sp. n. 21 – tergite VIII, dorsal view; 22 – ventrite VIII, ventral view; 23 – ventrite and tergite IX, ventral view; 24 – tergite and ventrite IX, dorsal view.

Legs (Figs. 18–20): femora and tibiae expanded (fossorial); protibiae with posterior tooth at apex but not at midlength; tarsomere 4 weakly lobed; metacoxa suddenly narrowed at basal third (Fig. 10).



Figs 25–29. Male genitalia of *Blaiseus* spp. 25–27. *B. hainanensis* sp. n., holotype: 25 – ventral view; 26 – dorsal view; 27 – close-up, ventral view; 28, 29 – *B. daklakensis*: 28 – original figure in Douglas (2009), from the paratype, dorsal view; 29 – holotype, dorsal view. (Figs 25, 26, 28 under the same scale, 29 not to scale).

Abdomen: abdominal segment 8 with tergite normal (Fig. 21), and ventrite non-lobed (Fig. 22); segment 9 with tergite and ventrite fused anterad, ventrite with apex round, tergite well sclerited laterally (Figs 23, 24).

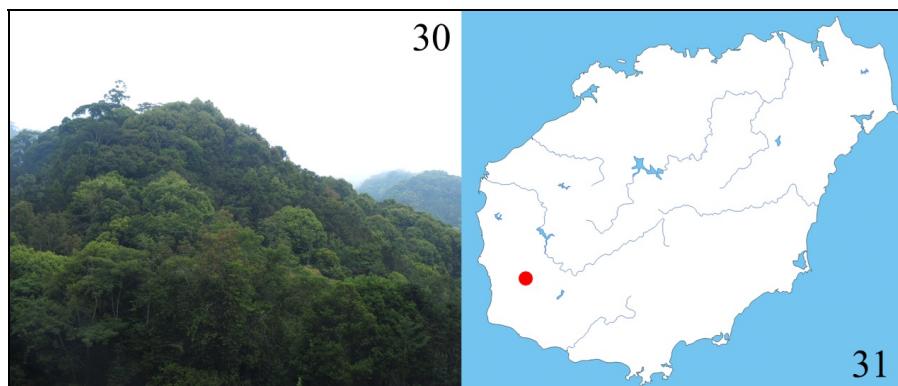
Male genitalia (Figs 25–27): median lobe broadest near apex, apex slightly protruded, sides concave throughout basal 3/4 of free portion; parameres with ventral apices slightly shorter than dorsal (setose) lobes; inner parameres sclerotized; apex of dorsal lobes with shallow pits (Fig. 27, arrows).

Female unknown.

DISTRIBUTION. China: Hainan (Fig. 31).

NATURAL HISTORY. Specimens were observed lying on leaves of shrubs at night in the rainforest of Mt. Jianfengling (Fig. 30).

ETYMOLOGY. The species epithet derives from the type locality Hainan Island, in China.



Figs 30–31. Type locality of *Blaiseus hainanensis* sp. n. 30 – Mt. Jianfengling forest; 31 – map of Hainan Island (red circle indicates the type locality of the new species).

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REFERENCES

Costa C., Lawrence, J.F. & Rosa, S.P. 2010. Elateridae Leach, 1815. P. 75–103. In: Leschen, R.A.B., Beutel, R.G. & Lawrence, J.F. (Eds). *Handbook of Zoology – Arthropoda: Insecta. Coleoptera, Beetles (Vol. 2) – Morphology and Systematics (Elateroidea, Bostrichiformia, Cucujiformia partim)*. Walter de Gruyter GmbH & Co. KG, Berlin/New York.

Douglas, H. 2009. Revision of *Blaiseus* Fleutiaux, a genus now known from Asia, Africa and North America (Coleoptera, Elateridae, Cardiophorinae). *The Coleopterists Bulletin*, 63: 86–100. DOI: <https://doi.org/10.1649/0010-065X-63.1.86>

Douglas, H. 2017. World reclassification of the Cardiophorinae (Coleoptera, Elateridae), based on phylogenetic analyses of morphological characters. *ZooKeys*, 655: 1–130. DOI: <https://doi.org/10.3897/zookeys.655.11894>

Fleutiaux, E. 1931. Les Élatérides de l'Indochine Française (Catalogue Raisonné), Quatrième Partie. *Bulletin de la société zoologique de France*, 56: 306–334.